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Arizona Labor Market NEWSLETTER

Arizona Department of Economic Security

Vol. VIII No. 6
June 1984

Unemployment Rate

Seasonally Adjusted
April *

ARIZONA	5.2%
Maricopa Co.	4.0%
Pima Co.	4.6%
UNITED STATES	7.8%

Consumer Price Index

National-March
1967 - Base Year

Wage Earner/Clerical Worker -	303.3
% Chg. Yr. Ago	3.5
All Urban -	307.3
% Chg. Yr. Ago	4.7

Phoenix-1st Qtr.
1977 - Base Year

All Urban -	177.4
% Chg. Yr. Ago	5.8

Producer Price Index

National-April *
1967 - Base Year

All Commodities-	311.4
% Chg. Yr. Ago	3.6
Finished Goods -	291.4
% Chg. Yr. Ago	2.9

* Preliminary

EDUCATION IN ARIZONA

JoAnn H. Wilson, editor

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ARIZONA'S COMMITMENT TO EDUCATION

Is Arizona serious about its commitment to education? Steps taken over the past two years seem to indicate that the governor, State Board of Education and the Arizona Legislature are, indeed, serious about raising education as a state priority, fully realizing that the investment made today will reap huge rewards for Arizona's future in the form of business and industry starts and relocations -- which mean jobs.

The most recent action taken by state leaders requires students to attend high school through the tenth grade. Requiring more than an eighth-grade education of Arizona citizens is a major step toward instilling the value of education in the minds of the children of this state. Accompanying this measure was another positive step, that of providing free textbooks at the high school level. Currently, students in grades one through eight receive their textbooks without cost under a constitutional requirement but must rent or purchase their books in high school, which sometimes provides an incentive for students to drop out.

With these two measures state leaders are sending a clear message to students, parents, and employers: Arizona as a state believes in education, knows it is a direct link to the economic well-being of the state, and is willing to take actions that begin the process of placing education at the top of the state's priority list.

Arizona is far from finished in its goal to upgrade the education system. Steps taken last year by the Arizona Board of Regents, at Governor Babbitt's request, to raise university admission requirements to four years of English, three years of mathematics (including algebra, geometry and a year beyond algebra), and two years of laboratory science; and the State Board of Education's move to increase high school graduation requirements to four years English, two years mathematics and two years science, helped to establish clear signals of expectations for young people and their parents. Other action is still necessary.

During the past year the governor has appointed three separate groups to study and make recommendations for education reform. The first of these groups, the Governor's Committee on Quality Education chaired by Dr. John Schaefer, issued a report entitled, Popular Concerns; Unpopular Choices, in November of 1983 (available through the Governor's office). The report issued 48 recommendations and cautioned that "apathy or inaction will only serve to guarantee mediocrity in our schools." The Committee spawned a task force that is currently studying teacher training at our state universities. Recommendations for improvement are expected in the near future.

A third task force was recently formed that will focus on the use of computers in the schools. In order to ensure that learning is keeping pace with technology, the task force will be developing guidelines for school districts on hardware and software selection, teacher training and curriculum development that integrates the computer.

Much remains to be done. Raising teacher salaries will help attract the "best and brightest" to the teaching profession (average starting pay is $13,841). The school year should be lengthened and the high school curriculum should be strengthened so that courses such as pom pom and student government do not carry the same weight as English and mathematics. Finally, changing some of the certification rules will allow specialists who have the subject knowledge and motivation to teach but who lack specific education courses to enter the high school classroom to teach in such shortage areas as science and math.

The accomplishment of many of these objectives will strengthen our education system which is the key to an adequately prepared work force.

Prudence Lee
Office of Governor

IS THE DECLINE IN PUBLIC SCHOOL ENROLLMENTS OVER IN ARIZONA?

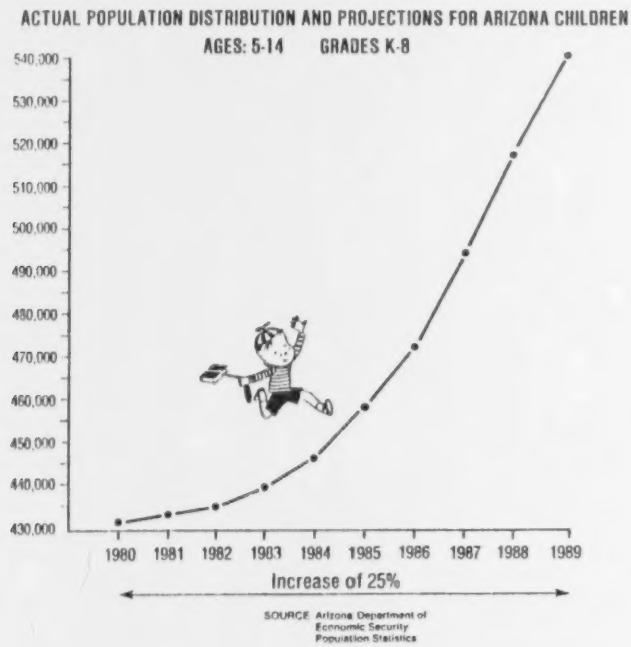
Is the period of enrollment decline over in K-8 schools within Arizona? Has Arizona as a state returned to the days of growing school systems? The answer to both questions seems to be yes. Although the number of high school students may continue to drop for a few more years before it begins its ascent, a pattern of growth has been established in the primary grades. This growth is expected to be compounded by the increased migration into our state.

Recent data from the Arizona Department of Economic Security indicate a steady increase in the number of school-aged children in Arizona. In 1965, a total of 33,762 births were recorded in Arizona. For the most part, these births represented the kindergarteners of 1970. In 1982, there were 52,628 births, the future kindergarteners of 1987. The number of children born in Arizona between 1976-1982 alone increased by 31 percent. Children aged 5-14, or those in grades K-8, are expected to increase from 445,327 in 1984, to 540,306 in 1989, an increase of 94,979 or 21 percent in just five years. If the additional 94,979 students becomes a reality, in the state of Arizona there will be an added need for 3,392 educators over the next five years in our K-8 schools, based on a ratio of 28 students to 1 teacher.

Since the 1972-73 school year, the number of teacher graduates has steadily declined in response to the tightening teacher job market. The fact that the number of teacher graduates is down by 60 percent and there is an anticipated increase in the number of school-aged children indicates that the mid-1980s hold much more promise for prospective teachers.

A study on the subject of teacher supply/demand was recently completed by the Office of Career Services at Arizona State University and is available upon request.

Raymond I. Castillo
Arizona State University



TEACHING SALARIES IN ARIZONA

The year 1983-84 marked a dramatic change in national attention to public education with the release of several critical analyses, such as the highly publicized report, A Nation At Risk. The issues cover a broad spectrum -- curriculum, homework, discipline, testing, to name a few. However, it is the teaching profession itself that has become the focal point of our present concerns and hopes for the future.

Certainly, there is consensus among educators, government and business officials, and the public at large that the academic preparation of teachers must be improved, and something must be done to elevate the status of teaching as a career, in terms of respect and rewards for the profession. Compensation is a central issue in teaching, as in any other profession, when the brighest students are making their career choices, and when the best teachers are deciding whether to remain in the classroom or to move on to other endeavors.

The results of a recent public opinion survey, commissioned by the Arizona Education Association and conducted by an independent polling firm, Behavior Research Center of Phoenix, underscored the importance of adequate salary levels for teachers in the minds of Arizona's citizenry.

This telephone survey conducted last November indicated that, while the public has a generally favorable attitude toward the present quality of Arizona teachers and public schools, it is highly critical of the inadequate pay levels for teachers. Only one in five of those surveyed rated the pay of Arizona's teachers favorably.

When asked what needs to be done to attract more qualified people into teaching, two out of three answered "higher pay for teachers." The intensity of the public's sentiment that teachers' salaries must be upgraded was further reflected in a 68 percent favorable reading on starting salaries of $20,000.

How does the public's perception of the worth of teachers compare with the reality in Arizona? For the 1983-84 school year, the statewide average starting salary for a teacher with a bachelor's degree is $13,841.* Table 1 accompanying this report presents starting salaries in various other academic fields. Table 2 shows the average teacher's salary in Arizona over the past ten years before and after the effects of inflation. As Table 2 illustrates, the average salary of teachers in Arizona, adjusted for inflation, has actually declined over the past decade. This is despite the fact that for the 1983-84 school year, the average teacher has 9.5 years of experience in the classroom. Presently, comprehensive data are not available on the academic preparation of all Arizona teachers. However, the records that are available indicate that the average teacher, in addition to almost ten years of experience, has a master's degree.

All sectors seem to agree that teaching salaries must be raised as part of the effort to improve the quality of education. It is there, in the identification of the problem, that the commonality ends. The most highly debated solutions involve merit pay, incentive pay, master teacher programs, career ladders, etc. The details of these plans are lengthy and complex, and deserving of separate, in-depth discussion.

The premise to be understood and accepted before analyzing the alternatives is that the economics of the workforce in education have changed. Teaching has traditionally been a woman's occupation. In the past, it was one of the few choices open to those women wishing to pursue a professional career. Statistics continue to show that female-oriented occupations tend to be lower paying, not because of the intrinsic worth of the work itself, but because women in general command lower salaries.

Today, women college graduates have more career options, and many of our teachers, male and female alike, are leaving the classroom for more lucrative opportunities in other fields. To further complicate the situation, demographers are predicting an upcoming teacher shortage, particularly in

Arizona. If the public's call for excellence in education is to be answered, the quality and supply of teachers must be improved, factors which are inextricably linked to better compensation for the profession.

Suzanne Zimmer
Arizona Education Association

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*Teacher Salary Schedules and Statistics, Arizona Education Association Research Bulletin #55.

TABLE 1

AVERAGE STARTING SALARIES FOR GRADUATES
WITH BACHELOR'S DEGREES

BACHELOR'S DEGREE IN--	AVERAGE EXPECTED STARTING SALARY
Electrical Engineering	$26,643
Chemical Engineering	26,164
Computer Science	25,849
Civil Engineering	21,266
Accounting	18,684
Financial Administration	18,122
Marketing, Sales	17,550
Business Administration	16,650
Personnel Administration	15,908
Hotel, Restaurant Management	15,447

Source: U.S. News & World Report, December 12, 1983.

TABLE 2

AVERAGE TEACHING SALARY IN ARIZONA
(BASE YEAR = 1974-75)

	CURRENT DOLLARS	CONSTANT DOLLARS	LOST TO INFLATION
1974-75	$11,939	$11,939	0
1975-76	$12,842	$11,767	-$1,075
1976-77	$11,944	$10,347	-1,597
1977-78	$10,926	$ 8,892	-2,034
1978-79	$13,614	$10,290	-3,324
1979-80	$15,054	$10,228	-4,826
1980-81	$17,158	$10,268	-6,890
1981-82	$19,211	$10,416	-8,795
1982-83	$21,119	$10,790	-10,329
1983-84	$21,605	$10,694	-10,911

EMPLOYABILITY SKILLS

Looking for a job but don't know what you want to do? Or maybe you've heard that computer operating is a good field -- but what do computer operators do anyway? And what courses should you take to get the skills you need?

You may not be asking these questions, but thousands of high school students are faced with these and other questions about possible careers and Employability Skills may give them some answers. The Arizona Department of Education has embarked on a long-term project to provide career information to students that is directly related to the world of work. By the summer of 1985, a total of thirty-five occupational clusters will be explored with skills identified for specific occupations within these clusters. In an initial effort, thirty occupations were identified in seven occupational areas. Skills were then identified and validated by people working directly in the field. These skills are now being disseminated to high schools throughout the state. An example of the skills identified for one occupational cluster -- data processing -- accompanies this report.

To further help students with their career planning, Employability Skills are broken down into three areas: 1) Job Skills -- activities directly related to the performance of the job; 2) Related Basic Skills-- knowledges needed to perform the job; and 3) Responsibility Skills -- skills and attitudes related to the quality of the job.

These skills can help students with their career exploration and academic planning through describing activities involved in the occupation, and identifying possible courses to learn the knowledge needed on the job. The Employability Skills Charts are also designed to show relationships, where they exist, between occupations in a given occupational area. This allows the student to see possible career alternatives or advancement possibilities.

Today, Employability Skills are a valuable exploration tool for students. However, they are also designed to be a basic building block for the future. Employability Skills will be the direct link between skills taught in vocational education and skills used on the job. This link will help keep curriculum relevant, and will allow students to focus on areas needed to get the skills required for the occupation. By identifying "related basic skills," Employability Skills also emphasize the need for academic skills such as math, science and communication. This works as a two-way street, providing relevance to these areas for the student and allowing academic instructors to tie-in practical applications with lesson plans when possible.

Another future application of Employability Skills is in job transferability. Employability Skills will allow a job changer to explore areas which require his or her present job skills and will identify areas where future training is needed. Instead of starting at the beginning in an educational program or course, the job changer can build upon present skills and pick up only the specific skills and knowledges needed for the desired occupation. Employability Skills can therefore be a powerful tool as jobs emerge, become obsolete, or are reconstructed.

Employability Skills have exciting implications for the future in education. Like any information tool, however, they are not designed to be used in isolation. Their value lies in their use in conjunction with school curriculum guides and occupational resources such as the Arizona Career Information System, Labor Market Information and the many occupational and career handbooks and guides. By providing a viable link between employment and education, Employability Skills are a valuable information resource and planning tool.

Lauren DeVuyst
Arizona Career Information System

DATA ENTRY OPERATOR

Related Basic Skills

COMMUNICATIVE ARTS

- Follows written and verbal instructions.
- Asks appropriate questions to find essential information.

COMPUTER SCIENCE

- Uses vocabulary of computer industry.
- Recognizes use of telephone in relation to computer systems.
- Keeps up to date with new developments in the field.
- Describes data-entry form layout.
- Describes tape, disk, and card record format.

Job Skills

- Operates on-line and remote job-entry terminals, including key-to-disk and key-to-tape equipment.
- Enters data from source documents, according to given format.
- Verifies data and corrects errors.
- Adds and modifies data in data-entry records.
- Identifies, stores, and inventories data-entry supplies.
- Provides help to users of the service.
- Files reusable tapes, disks, or diskettes.
- Maintains production logs for information management.

Responsibility Skills

- Maintains confidentiality of data.
- Ensures that data entered is complete.
- Identifies and flags possible problems in input documents.
- Checks errors with supervisor or consultant.
- Assists with on-the-job training of other operators.
- Manages stress and frustration in dealing with people and systems.
- Learns and applies new technologies and procedures.
- Works well as a team member.

COMPUTER OPERATOR

Related Basic Skills

SCIENCE

- Describes principles of telecommunications and data-processing systems.

COMMUNICATIVE ARTS

- Reads computer operating instructions and manuals.
- Reads systems flowcharts and diagrams.
- Asks appropriate questions to find essential information.

COMPUTER SCIENCE

- Describes concepts and trends in data processing.
- Describes job-control language (JCL) and procedures.
- Identifies tape, disk, and card recording characteristics.
- Explains nature and function of computer terminals and related (peripheral) equipment.
- Describes timeshare procedures for system operations.
- Demonstrates proficiency in keyboard operation.

Job Skills

- Performs power-on, power-off and restart procedures.
- Mounts and dismounts disk packs and tapes.
- Transmits and receives data to and from remote sites.
- Copies computer files for backup.
- Loads, runs, and monitors programs, computer files, and data bases.
- Identifies error message and performs correction procedure.
- Maintains records and logs of computer usage.
- Files processed forms, punched cards, and job instruction sheets.
- Performs routine maintenance for example, cleans equipment, clears paper jams, and changes ribbons.
- Maintains tape and disk pack library.
- Detects and locates causes of equipment problems.
- Maintains appropriate environmental conditions in computer room.

Responsibility Skills

- Starts procedures for equipment repair.
- Checks that all jobs are complete.
- Respects and protects client confidentiality and data security.
- Protects tapes, cards, and disk packs against loss or damage.
- Safeguards access to computer room.
- Manages time effectively.
- Manages stress and frustration in dealing with people and systems.
- Learns and applies new technologies and procedures.

COMPUTER PROGRAMMER

Related Basic Skills

MATHEMATICS

- Demonstrates mathematical skills required to write calculation routines.
- Explains and converts numbering systems: for example, decimal to binary.
- Demonstrates accounting skills needed to analyze and write programs.

COMMUNICATIVE ARTS

- Demonstrates written and verbal communication skills.

COMPUTER SCIENCE

- Describes concepts and trends in data processing.
- Explains impact of current developments on data processing: for example, telecommunications, robotics, and microcomputers.
- Identifies and selects the correct coding and computer reporting forms.
- Defines job-control languages, edit routines and program languages.
- Applies logic to reduce complex projects into manageable tasks.

Job Skills

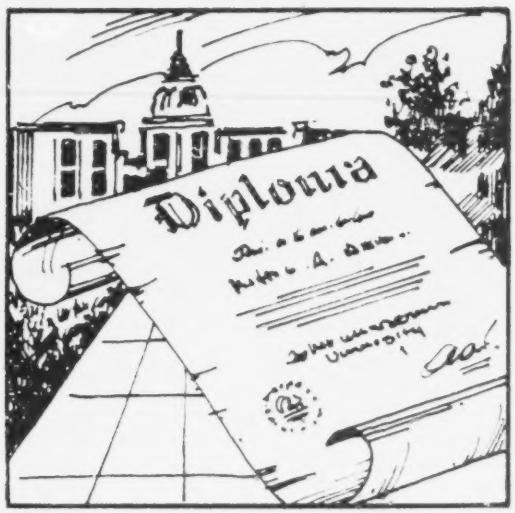
- Analyzes programming problems.
- Designs input and output formats.
- Programs for efficient use of computer time.
- Selects files and subroutines for use in programming.
- Develops flowcharts and programming diagrams.
- Uses appropriate computer programming languages: for example, COBOL and BASIC.
- Writes programs, using accepted coding standards.
- Tests (debugs) program, corrects errors, and makes revisions in program.
- Runs test data to verify program.
- Prepares program documentation.
- Prepares operator and user instructions.
- Performs program maintenance and modifications.

Responsibility Skills

- Respects and protects client confidentiality and data security.
- Protects tapes and programs against loss and damage.
- Communicates effectively with users to clarify data processing needs and specify solutions.
- Consults with users to verify initial results.
- Manages time effectively.
- Works well as a team member, and adapts to changes.
- Manages stress and frustration in dealing with people and systems.
- Learns and applies new techniques and procedures.

LIBERAL ARTS GRADUATES AND THE EMPLOYMENT MARKET

Every year college placement offices across the country are besieged by the media to answer questions on the hiring picture for liberal arts graduates, the assumption being that these graduates are largely unemployable. This assumption, however, is unfounded for there is good evidence to believe that liberal arts graduates do, in fact, find jobs and reach pinnacles of success. But there are obstacles along the way.



One obstacle is defining just what a liberal arts graduate is. Presumably, it is a student who has completed a course of study in the College of Liberal Arts, which at Arizona State University includes mathematics, physics, chemistry and biology for a total of 24 different subject areas. It can be very different in other universities and labeled with various titles such as "Letters and Science" and "Arts and Science." However, the negative assumption, which is very false, is that the course of study has consisted of easy subjects, none of which are employment-related.

This false assumption is compounded when new graduates apply to employers, introducing themselves by their majors. At the bachelor's level, one does not become a philosopher, nor a political scientist, nor a historian. And, in the same vein, employers do no file their jobs under college majors. Nor do they recognize when seeing application blanks listing English, French, geography or anthropology majors what skills the individual has acquired in that program, or where such skills can be used in the organization.

So the problem is also communication. If, upon graduation, students who have majored in areas that are not specific to employment could transfer to the application form the aptitudes, abilities and skills they have learned not only from their academic studies but also from part-time work, life experience and volunteer and community service, an employer could then project a possible assimilation of this candidate into the organization. It is a pattern of our culture that we are very mobile in the work force. The majority of career paths are without names and are, in effect, a series of job experiences. It would be difficult to prepare academically for a specific route to the majority of professional-level positions. Even individuals headed for specific areas of employment such as accounting, engineering, marketing and nursing frequently experience career changes that take them far afield of their original plans. For these reasons, a college and university education cannot be viewed from the standpoint of preparation for the initial job placement so much as the development of skills that offer the potential for growth and change.

Unfortunately, the emphasis today has been more and more on the short-range or immediate-results orientation. College majors are measured with the "Can-it-get-me-a-job?" gauge -- very short-sighted from the standpoint of the ever-changing economy and technology. First-year college students declare majors and career goals that may be non-existent by the time they graduate; certainly, demand will have changed -- sometimes upward, but sometimes down.

Pressure comes from parents, sources of college financing and, especially, employers. While it is understandable that employers have specific needs in some areas,

job requirements too often are tied to particular majors, while other needs often developed in the liberal arts areas are ignored. How often do employers despair the lack of written and communication abilities but continue to leave the mention of them out of job listings? How many customers are lost by individuals with poor human relations skills? Logic, organization, creativity and problem solving are not confined to certain majors.

But employers are not solely to blame for this lack of insight. It is up to the individuals who choose majors not easily identified with employment to enhance their opportunities with some pragmatic subject matter and work experience while in college. It is also up to them to become aware during their college years of the realities of the needs of employers and to identify and develop necessary skills before embarking on an employment search.

The fact is that upon graduation, those students with majors specific to employment do get hired first. About six months later, however, the employment ratio has evened out. It may have taken six months of frustration while they figure out where they fit into the system but, in the end, liberal arts majors do very well in the hiring process. It may take them a little longer, but they have farther to go. All the way to the top.

Diana Regner
Arizona State University

TRAINING ARIZONA WORKERS FOR THE HIGH TECH AGE

Through the exemplary efforts of the Governor's office and local economic development groups, and because of our Arizona lifestyle, record numbers of new businesses are moving to Arizona. Many of these businesses exemplify the transformation to an information society described by John Naisbitt in his widely read Megatrends. Naisbitt predicts that in the next decade, many employees will be employed in jobs that do not even exist today. He also points out that the majority of the population will have at least three careers. This implies that the employing firm, a governmental agency or the public education system will train the same person again and again.

How will these training needs be met? Two schools of thought seem to be emerging. Proponents of the first believe that we should insist that the high schools and community colleges teach exceptionally well the basics of reading, writing, mathematics and communicating. This theory holds that mathematics and principles in physics are the language of high technology and that skills in communication are essential to keep up with and understand technology. Since most of the larger companies have sophisticated training programs for employees, it is argued, all that is needed is for the new hires to have the basic skills, plus a good attitude about learning and job responsibilty.

On the other hand, both large and small business are demanding more from governmental and public agencies. They expect a better product and more service for the taxes they pay. Smaller businesses have less margin of profit and are hard pressed to spend money for employees that are not productive and who need extensive training after they are hired. They need employees who are job-ready.

Education systems are changing to meet these new demands. Parents and citizen advisory groups are meeting all over our state to raise questions about the type and quality of education. The Arizona State Legislature is passing laws to change outdated funding formulas to provide incentives to colleges, universities and public schools to begin new vocational training programs. Private industry councils, JTPA, vocational rehabilitation and public school administrators are requiring more accounta-

bility from those who train prospective employees.

The major question is: Can we change our public education system fast enough to teach the basic three Rs and technology? The answer is: Probably.

Unfortunately, change in a society as complex as ours is difficult. Teachers are used to parental attitudes that do not require discipline or a respect for learning at home. Parents expect the schools to make a super-achiever out of a child they have ignored for 10 years. Public school administrators have difficulty in terminating lazy, inefficient teachers because of tenure laws and the ease in which teachers can file and win lawsuits if they are fired. Teachers, parents, board and civic groups have difficulty in firing administrators who refuse to change outdated ways.

Public pressure is building to modernize vocational training curriculum and to cause public training agencies to respond to business training needs. Arizona's state community college system is responding:

- The Aravaipa Campus of Central Arizona College has developed an organization to provide skills training for the major employers in Pinal County.
- Rio Salado College, a unit of the Maricopa Community College District, has provided in-plant training for Phoenix industries for the past five years.
- Arizona Western Community College at Yuma has exemplary programs in welding, agriculture, computer science and automotive mechanics.
- Northland Pioneer College has been a leader in developing training laboratories in trailers that can be moved from one location to another. The cosmetology, automotive and welding labs can be moved to different towns in the northern counties to train those who need entry-level job skills or retraining.
- Cochise College provides vocational skills training at Sierra Vista and at the Douglas Campus. This college has the only occupational training program for the air-transportation industry.

In 1981, Pima Community College developed the Pima College Institute. The Institute has two major funtions: to train adults for entry-level positions and to develop training programs to upgrade persons who are already employed. Like other community colleges, the Pima Institute has trained staff who meet with business leaders and advisory committees to develop programs that are industry based. These training programs provide state-of-the-art instruction and teach skills that are necessary for getting and holding a job.

A unique feature of the Pima College Institute is that it hires staff from industry on a temporary basis to teach the skills. This arrangement allows the college to hire persons from the industry to teach. This provides up-to-date instruction and does not commit the colleges to long-term arrangements with instructors.

Whenever possible, the skills training is done in the plant on equipment that will be used on the job. Again, this arrangement can be terminated when sufficient employees are hired. Also, it provides an incentive for cross training or advanced training to those persons who hold lower-paying positions.

Pima College and the other community colleges in the state can respond quickly to industry training needs. The length of training can vary from 11 weeks to 12 months, depending on the skills needs. Colleges are funded by the counties and the state to provide skills training. In most instances, these state and county funds can be used to pay the cost of training. The community colleges can train any skill needed by Arizona industries.

Try us, you'll like the product.

James E. Gibson
Pima Community College

SOME CHANGES ARE FOR GOOD -- VOCATIONAL EQUITY IN ARIZONA

Vocational equity: What is it? How many people really understand its mission and value the impact it can have on students and society as a whole? Since 1976, when the vocational education amendments were first passed to promote equal opportunities in all vocational programs, equity specialists have been working to communicate the intent and purpose of this legislation. There are three major areas being addressed at the secondary and postsecondary levels:

1. How to eliminate sex role stereotyping in vocational programs.

2. How to serve displaced homemakers and other special groups.

3. How to provide support services for women in nontraditional fields.

In Arizona, there are three statewide equity projects for 1983-84. New Frontiers, located in Tucson, provides statewide technical assistance to school districts through seminars, workshops, materials and student forums. Its major purpose is to eliminate stereotyping in vocational programs and to provide support to people who choose a nontraditional career. One of its recent projects was a three-part seminar offered to IBM employees on "Maximizing Parental Involvement in Career Planning." Particular attention was paid to helping parents assist their children in making informed career choices by taking into account values, interests, skills and current labor market information.

PHASE, also located in Tucson, is one of two programs serving displaced homemakers. Designed to help women who must return to the job market after being full-time homemakers, it provides counseling, job readiness skills and placement services. In addition, the program trains counseling interns from the University of Arizona to better serve the growing population of reentry women and displaced homemakers. During the six years of its existence, PHASE has served 1,375 women. Of those who have completed the full program, 75 percent have found work and about 20 percent have decided their interests were in areas that required additional training. They have enrolled in universities or other training programs and PHASE has frequently helped them to secure financial aid.

The other program assisting displaced homemakers is in Phoenix at Glendale Community College. For the past two years, this program has sponsored a two-day statewide workshop offering agencies and professionals strategies and skills for improving services to their female clients. In addition, it provides counseling and support services to the students on campus.

The equity effort, however, is not limited to these projects. Support is available to counselors, teachers, administrators, students and community agencies in the form of conference and classroom presentations, publications, the newsletter CONNECTIONS, the resource guide Preparing for a Nontraditional Job and training institutes and staff development activities. A survey in January of rural community colleges revealed that enrollment increases in these institutions are primarily women in the 30-45 year age group and that limited services are available in the rural areas for the displaced homemaker. The Office of Equal Vocational Opportunities of the Arizona Department of Education is currently exploring ways to serve the needs of these women.

Why is there such an emphasis on equity both at the federal and state levels? The main reason is to ensure that all students are encouraged and supported in their career choice. Historically in vocational education, males and females have been clustered into very traditional classes, i.e., females into home economics and health, males into trade and industry or agriculture. Our society in reinforcing these choices failed to acknowledge that

people's skills and talents may not fall within this narrowly defined range of choices. Also, for the female, these limited choices offered less in terms of financial reward and/or career advancement.

Vocational equity encourages students to explore both traditional and nontraditional options in order to identify which is best suited to them. Vocational equity also assists in breaking down the attitudinal barriers that sometimes are subtle deterrents to a nontraditional job. Finally, vocational equity assists people to make nonstereotyped life choices that will be financially and personally rewarding and will contribute positively to our society.

According to data compiled in a status report on male and female students in Arizona vocational education, enrollment is increasing for nontraditional areas. Each of the seven program areas shows some change. Especially significant is the 11 percent rise of males in health occupations and seven percent rise of females in trade and industry. These changes are reflected in the work place too. In 1970 in Arizona, less than one percent of bus drivers and bakers were females but in 1980 over 40 percent of the workers in these jobs were women. Today it is not so unusual to see a male nurse or a female construction worker. If you talked to these people about their work, you would hear comments like challenging, satisfying, rewarding, exciting.

Our society is changing and what worked 25 years ago does not necessarily hold true today. Vocational equity is helping the education system prepare for and adapt to these changes. For the more than 88,000 Arizonans working in nontraditional jobs, these changes are for good.

Jenny L. Erwin
Arizona Department of Education

PROPRIETARY SCHOOLS EDUCATE FOR JOBS

There are more than 200 proprietary (for-profit) schools operating in Arizona. They vary from small, single-owner institutions offering instruction in a single specialty to a large college-level institution managed by the proprietary education subsidiary of a major corporation.

Proprietary vocational schools have been part of our state's educational heritage for nearly 100 years. In 1889, Colonel Edwin Lamson founded a Phoenix secretarial school that has since grown to offer a broad range of business and secretarial programs on three separate campuses.

Programs offered by proprietary schools can range from a few weeks to several years. Most, however, require more concentrated studies over a shorter period of time than corresponding programs offered by public education. In general, classes in proprietary schools are marked by a no-nonsense approach which emphasizes attendance, punctuality and work habits to quickly teach students the skills needed to get a specific job.

This interest in training for jobs is apparent in the programs proprietary schools offer. Table 1 contains the top 20 occupations in Arizona based upon numbers employed. Of these 20 occupations, only two -- elementary school teachers and professional nurses (RNs) -- require college training, and specialized education in nearly half of these 20 fields is available at one or more of Arizona's proprietary schools.

According to statistics gathered by the Arizona Commission for Postsecondary Education, there has been a steady increase in the number of graduates from Arizona proprietary schools (see Table 2). During the past four years, for example, the number of graduates from trade and technical schools increased 96 percent; from barber colleges and cosmetology schools, 70 percent; from health schools, 458 percent; and from business schools, 301 percent.

JoAnn H. Wilson
Labor Market Information

TABLE 1

TOP 20 ARIZONA OCCUPATIONS

	OCCUPATION	NUMBER EMPLOYED IN ARIZONA, 1983
1.	Sales Clerks (exclude Cashiers)	34,482
*2.	General Clerks, Office	26,899
*3.	Secretaries	26,886
4.	Janitors, Porters and Cleaners	26,470
*5.	Waiters and Waitresses	21,354
6.	Elementary School Teachers	19,567
7.	Cashiers	18,461
8.	Food Preparation and Serviceworkers, Fast Foods	15,403
9.	Nurses, Professional	15,247
10.	Electrical and Electronic Assemblers	15,060
*11.	Truck Drivers	14,578
12.	Supervisors, Nonworking, Blue Collar	12,166
*13.	Typists	11,303
*14.	Managers, Store	10,803
15.	Stock Clerks	10,001
*16.	Automotive Mechanics	9,396
*17.	Bookkeepers, Hand	9.233
18.	Delivery and Route Workers	9,147
19.	Maintenance Repairers, General Utility	9,109
*20.	Accounting Clerks	9,109

*Training available at Arizona proprietary school/s.
NOTE: "All Other" headings were disregarded in compiling table (e.g. "All other Managers and Officers," "All Other Sales Workers").
SOURCES: Labor Market Information, Occupational Employment Statistics (OES) Unit and Arizona Commission for Postsecondary Education, Education After High School in Arizona, 1984.

TABLE 2

GRADUATES FROM ARIZONA PROPRIETARY SCHOOLS
1979-80 TO 1982-83

SCHOOL TYPE	1979-80	1980-81	1981-82	1982-83
Trade and Technical Schools	3,623	3,859	4,596	7,107
Flying Schools	305	216	2,410*	2,852*
Barber Colleges and Cosmetology Schools	753	1,068	1,217	1,278
Modeling and Fine Arts Schools	449	997	3,390	1,315
Health Schools	575	703	1,490	3,207
Business Schools	905	2,004	4,209	3,631
Real Estate Schools**	4,353	4,736	19,173	15,188

*Includes large proportion of non-resident students.
**Includes large proportion of continuing-education students.
Source: Arizona Commission for Postsecondary Education, Annual Survey of Arizona Postsecondary Institutions (voluntary).

ARIZONA'S POSTSECONDARY STUDENTS--THEIR CHARACTERISTICS, INCOME AND EXPENDITURES

No matter which type of postsecondary school a student in Arizona wishes to attend -- public university, private college, community college or proprietary school -- the total cost is likely to be quite high. This is according to a recently released study of students at 36 Arizona postsecondary schools surveyed in the spring of 1983.*

The researchers found that the sum of the direct school costs plus living expenses plus transportation for students at these beyond-high-school institutions in our state averaged $6,917 per year. The yearly averages varied from $5,985 at a typical community college to $6,724 at a public university, $8,835 at a one-year proprietary school program, and were topped by an average cost of $11,226 at the private colleges.

These findings are just a few of the new insights this report provides on Arizona's postsecondary students--their characteristics, income and expenditures.

STUDENT CHARACTERISTICS

A total of 1,694 Arizona students provided useable responses to the survey. Most of the respondents were of "traditional" college age (18-23), but the community colleges and proprietary schools had substantial proportions of older students. Nearly all the respondents were Arizona residents. Most were single and eight of 10 were Caucasians. The Native American, Black and Hispanic students had the lowest parental income levels and they tended to go to community colleges and proprietary schools. The Caucasians and Asians had higher levels of parental income and their primary choices were four-year public universities and private colleges.

Reasons the students gave for choosing their school primarily centered upon the academic program with cost factors close behind. At least two-thirds of the students preferred the school they were then attending, except for those in the community college category where 60 percent said they would prefer to go to a four-year university.

STUDENT INCOME

A major survey objective was to obtain data about where Arizona's postsecondary students get the money they need to go to school. Therefore, the sample was selected to include all types of students whether they were receiving financial aid or not. The results clearly show that, for the majority of students in the survey, funds from the various financial aid programs were extremely important to them.

Overall, two-thirds of the respondents had received funds from one or more of the financial aid programs, but the variation among categories was considerable and was directly related to school cost. Only 57 percent of the community college students had received aid, but this percentage rose to 64 percent at the public university, to 81 percent at the proprietary school, and to a high of 88 percent at the private college. Of the sources of financial aid funds, loans were most important followed by grants and then scholarships and fellowships, Social Security and Veteran's Administration benefits. Many of the students (43 percent) had loans to repay, and this proportion was especially high at the more costly private colleges and proprietary schools.

Self-help sources included parental contributions for about half of the students, personal savings for about 40 percent and wages from work for about 60 percent. The vast majority of respondents indicated that, if pressed financially, they would find ways to remain in school. The "ways" included additional employment, loans and help from parents.

STUDENT EXPENDITURES

The costs students must bear are shown in the accompanying table. The data for the community colleges are averages of all

such schools in the survey. The expenses shown for the public universities are for the middle-cost school of the three institutions while the costs shown for the private colleges are a weighted average of the three private schools included in the survey. The proprietary school costs given in the table are for one of the medium-cost schools. At the most expensive proprietary schools, the total cost exceeded $10,500. The data in the "average for all students" column are for the total number of students at all schools in the survey.

The major variation was in the direct school costs where tuitions ranged from less than $300 to almost $6,000 per year. The most costly living-expense item was for room and board which ranged from a low of $2,500 to a high of $3,400. Other living expense items such as recreation, clothes, laundry and personal care were fairly consistent from one type of school to another.

The amount the students said they spent for transportation was surprisingly high. There was a remarkable similarity of these costs reported by all but the private college. This is also a cost which many people do not consider when they plan for their postsecondary education expenses.

Even though many of the amounts the students gave in this survey were estimates, they were consistent enough to be considered credible. They show, without any doubt, that Arizona's postsecondary schools have gone well beyond the inexpensive levels of just a few years ago. The responses also show that the students of Arizona consider their educational goals to be important enough to be willing to pay these high costs to attain them.

Dr. Ross Erbschloe
Arizona Commission
for Postsecondary
Education

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*"Income and Expenditures of Arizona Postsecondary Students," by Dr. Ross Erbschloe, Executive Director, Arizona Commission for Postsecondary Education, and Dr. Robert Fenske, Professor of Higher Education, Arizona State University. A limited number of copies of the full report is available. Contact the Arizona Commission for Postsecondary Education at 1937 West Jefferson, Phoenix, Arizona 85009, or call (602) 255-3109.

ARIZONA POSTSECONDARY STUDENT EXPENSES
1983

Expense Group	Public University	Private College	Community College	Proprietary School	Average for all Students
Direct School Costs	$1,554	$ 4,771	$ 570	$3,357	$1,729
Living Expenses	3,598	4,567	3,915	3,897	3,544
Transportation	1,572	1,888	1,500	1,581	1,644
Total Costs	$6,724	$11,226	$5,985	$8,835	$6,917

April 1984 (in thousands)

	ARIZONA				
	Apr.* 1984	Mar. 1984	Apr. 1983	-- Amt Change -- Mar. to Apr.	1983 to 1984
TOTAL CIVILIAN LABOR FORCE	1406.2	1412.6	1380.0	-6.4	+26.2
Total Unemployment	71.2	76.1	134.4	-4.9	-63.2
Rate	5.1	5.4	9.7	---	---
Rate (Sea. Adj.)**	5.2	5.5	10.0	---	---
Total Employment	1335.0	1336.5	1245.6	-1.5	+89.4

THE ABOVE LABOR FORCE STATISTICS SHOUL

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

TOTAL WAGE AND SALARY	1138.2	1135.1	1061.8	+3.1	+76.4
Manufacturing	165.4	165.0	152.2	+0.4	+13.2
Durable Goods	129.7	129.3	118.2	+0.4	+11.5
Stone, Clay and Glass	7.0	6.8	5.8	+0.2	+1.2
Primary and Fabricated Metals	14.9	14.9	14.5	+0.0	+0.4
Primary Metals	6.3	6.4	6.7	-0.1	-0.4
Fabricated Metals	8.6	8.5	7.8	+0.1	+0.8
Machinery	64.9	64.7	60.5	+0.2	+4.4
Other Durable Goods	42.9	42.9	37.4	+0.0	+5.5
Aircraft and Missiles	19.1	18.9	17.3	+0.2	+1.8
Lumber and Wood Products (Except Furniture)	6.7	6.9	5.8	-0.2	+0.9
All Other Durable Goods	17.1	17.1	14.3	+0.0	+2.8
Nondurable Goods	35.7	35.7	34.0	+0.0	+1.7
Food and Kindred Products	7.7	7.6	7.9	+0.1	-0.2
Apparel	5.4	5.5	5.0	-0.1	+0.4
Printing and Publishing	12.8	12.8	12.0	+0.0	+0.8
All Other Nondurable Goods	9.8	9.8	9.1	+0.0	+0.7
Mining and Quarrying	13.6	13.2	14.4	+0.4	-0.8
Copper Mining	10.7	11.0	11.5	-0.3	-0.8
Other Mining and Quarrying	2.9	2.2	2.9	+0.7	+0.0
Construction	87.8	86.7	72.2	+1.1	+15.6
Trans., Communications, and Public Utilities	59.0	59.2	56.5	-0.2	+2.5
Transportation	24.9	25.2	23.5	-0.3	+1.4
Communications and Public Utilities	34.1	34.0	33.0	+0.1	+1.1
Trade	271.0	270.2	256.2	+0.8	+14.8
Wholesale Trade	54.3	54.4	50.9	-0.1	+3.4
Retail Trade	216.7	215.8	205.3	+0.9	+11.4
General Merchandise and Apparel	36.2	36.3	35.2	-0.1	+1.0
Food Stores	34.3	34.3	33.0	+0.0	+1.3
Automotive and Service Stations	25.1	24.9	23.8	+0.2	+1.3
Eating and Drinking Places	77.4	76.8	72.6	+0.6	+4.8
Other Retail Trade	43.7	43.5	40.7	+0.2	+3.0
Finance, Insurance, and Real Estate	68.6	68.5	64.7	+0.1	+3.9
Services and Miscellaneous	257.1	256.0	236.5	+1.1	+20.6
Hotels and Other Lodging Places	28.0	27.9	25.3	+0.1	+2.7
Business Services	53.0	52.0	45.1	+1.0	+7.9
Health Services	67.2	67.5	64.1	-0.3	+3.1
Other Services	108.9	108.6	102.0	+0.3	+6.9
Government	215.7	216.3	209.1	-0.6	+6.6
Federal	39.5	39.4	38.2	+0.1	+1.3
State and Local	176.2	176.9	170.9	-0.7	+5.3
School	109.5	110.5	105.5	-1.0	+4.0

* Preliminary
** Normal seasonal variations have been eliminated to reflect underlying economic trends.
NOTE--Data have been adjusted to the 1972 Standard Industrial Classifications (SIC).

April 1984 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
Apr.* 1984	Mar. 1984	Apr. 1983	Mar. to Apr.	1983 to 1984	Apr.* 1984	Mar. 1984	Apr. 1983	Mar. to Apr.	1983 to 1984
888.7	892.0	848.2	-3.3	+40.5	259.4	260.7	258.2	-1.3	+1.2
34.4	37.0	64.2	-2.6	-29.8	11.6	12.9	25.4	-1.3	-13.8
3.9	4.1	7.6	---	---	4.5	4.9	9.8	---	---
4.0	4.2	7.8	---	---	4.6	5.0	10.1	---	---
854.3	855.0	784.0	-0.7	+70.3	247.8	247.8	232.8	+0.0	+15.0

'NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS.

'NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

742.2	740.3	681.5	+1.9	+60.7	209.6	209.0	197.6	+0.6	+12.0
119.7	119.5	109.4	+0.2	+10.3	27.9	27.9	26.3	+0.0	+1.6
94.9	94.6	86.2	+0.3	+8.7	23.1	23.2	21.6	-0.1	+1.5
4.3	4.1	3.5	+0.2	+0.8					
9.5	9.4	9.4	+0.1	+0.1					
52.0	51.9	47.8	+0.1	+4.2					
29.1	29.2	25.5	-0.1	+3.6					
24.8	24.9	23.2	-0.1	+1.6	4.8	4.7	4.7	+0.1	+0.1
5.2	5.1	5.5	+0.1	-0.3					
3.2	3.3	2.6	-0.1	+0.6					
9.4	9.4	8.8	+0.0	+0.6					
7.0	7.1	6.3	-0.1	+0.7					
0.7	0.7	0.6	+0.0	+0.1	3.7	3.6	3.8	+0.1	-0.1
61.2	60.5	50.3	+0.7	+10.9	17.9	17.6	13.6	+0.3	+4.3
37.9	38.2	35.9	-0.3	+2.0	9.0	9.0	8.7	+0.0	+0.3
16.5	16.9	15.4	-0.4	+1.1	4.0	4.0	3.7	+0.0	+0.3
21.4	21.3	20.5	+0.1	+0.9	5.0	5.0	5.0	+0.0	+0.0
184.8	184.5	173.9	+0.3	+11.9	44.1	43.6	42.9	+0.5	+1.2
43.0	42.7	40.4	+0.3	+2.6	6.4	6.3	5.8	+0.1	+0.6
141.8	141.8	133.5	+0.0	+8.3	37.7	37.3	37.1	+0.4	+0.6
23.2	23.5	22.3	-0.3	+0.9	6.6	6.5	6.6	+0.1	+0.0
22.1	22.0	21.0	+0.1	+1.1	5.5	5.5	5.5	+0.0	+0.0
16.1	16.0	15.0	+0.1	+1.1	4.0	4.0	4.0	+0.0	+0.0
49.7	49.8	46.3	-0.1	+3.4	14.2	13.9	13.7	+0.3	+0.5
30.7	30.5	27.9	+0.2	+2.8	7.4	7.4	7.3	+0.0	+0.1
53.7	53.6	50.6	+0.1	+3.1	9.6	9.5	8.9	+0.1	+0.7
175.1	174.5	158.2	+0.6	+16.9	48.5	48.5	45.9	+0.0	+2.6
16.6	16.8	14.9	-0.2	+1.7	4.6	4.9	4.1	-0.3	+0.5
43.9	43.0	37.2	+0.9	+6.7	7.5	7.4	6.4	+0.1	+1.1
45.5	45.7	42.9	-0.2	+2.6	13.9	13.9	13.7	+0.0	+0.2
69.1	69.0	63.2	+0.1	+5.9	22.5	22.3	21.7	+0.2	+0.8
109.1	108.3	103.6	+0.3	+5.5	48.9	49.3	47.5	-0.4	+1.4

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/84)

NONMETROPOLITAN COUNTIES LABOR FORCE AND EMPLOYMENT
April 1984 (Preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	14,250	28,300	35,100	13,650	7,450	3,825	4,600
Total Unemployment	1,725	2,100	2,225	1,775	650	225	525
Rate	12.1%	7.4%	6.3%	13.0%	8.7%	5.9%	11.4%
Rate (Seas. Adj.)**. . . .	12.8%	7.5%	6.6%	13.5%	9.1%	6.2%	-INA-
Total Employment	12,525	26,200	32,875	11,875	6,800	3,600	4,075
THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS							
TOTAL WAGE AND SALARY. . . .	13,100	21,375	30,975	9,575	4,300	3,125	2,325
Manufacturing.	650	1,500	2,450	1,450	100	325	100
Mining and Quarrying	50	350	50	1,350	75	1,675	0
Construction	1,500	875	1,050	450	125	50	50
Trans., Comm., & Pub. Util..	1,725	1,300	2,575	275	150	50	50
Trade.	1,050	4,375	6,975	1,700	1,150	350	800
Fin., Insur., & Real Estate.	150	625	600	225	100	25	100
Services and Miscellaneous .	3,225	2,625	7,125	1,500	725	100	650
Government	4,750	9,725	10,150	2,625	1,875	550	575

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	21,850	24,375	30,150	8,400	30,625	35,525
Total Unemployment	2,275	2,325	3,300	975	2,625	4,450
Rate	10.4%	9.5%	10.9%	11.6%	8.6%	12.5%
Rate (Seas. Adj.)**. . . .	10.3%	9.8%	11.3%	14.3%	8.9%	-INA-
Total Employment	19,575	22,050	26,850	7,425	28,000	31,075
THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS						
TOTAL WAGE AND SALARY. . . .	15,000	17,225	22,675	7,425	16,850	22,450
Manufacturing.	2,125	1,800	2,550	850	2,075	1,725
Mining and Quarrying	250	1,075	3,975	25	350	50
Construction	850	600	600	225	975	1,475
Trans., Comm., & Pub. Util..	925	1,575	1,000	550	875	1,000
Trade.	4,250	2,975	3,800	3,150	4,475	7,100
Fin., Insur., & Real Estate.	725	275	725	225	725	750
Services and Miscellaneous .	2,800	4,450	2,150	1,050	3,125	3,925
Government	3,075	4,475	7,875	1,350	4,250	6,425

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
**Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS
March 1984 (Final)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,412,560	1,336,510	76,050	5.4%
Apache	14,505	12,604	1,901	13.1
Cochise	28,494	26,318	2,176	7.6
Coconino	34,690	32,079	2,611	7.5
Gila	13,843	11,958	1,885	13.6
Graham	7,494	6,799	695	9.3
Greenlee	3,891	3,637	254	6.5
La Paz	4,696	4,124	572	12.2
Maricopa	891,996	855,013	36,983	4.1
Mohave	21,907	19,420	2,487	11.4
Navajo	24,491	21,872	2,619	10.7
Pima	260,719	247,814	12,905	4.9
Pinal	30,383	26,982	3,401	11.2
Santa Cruz	8,603	7,550	1,053	12.2
Yavapai	31,573	28,639	2,934	9.3
Yuma	35,275	31,701	3,574	10.1

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS IN SELECTED INDUSTRIES IN ARIZONA
April 1984

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	APR.* 1984	MAR. 1984	APR. 1983	APR.* 1984	MAR. 1984	APR. 1983	APR.* 1984	MAR. 1984	APR. 1983
FOR THE STATE OF ARIZONA*									
Manufacturing	374.74	369.65	351.16	41.0	40.8	39.5	9.14	9.06	8.89
Aircraft & Missiles	490.68	480.53	470.38	42.3	42.3	42.3	11.60	11.36	11.12
Food & Kindred Products	316.30	316.30	325.05	38.2	38.2	39.4	8.28	8.28	8.25
Primary Metals	473.37	458.81	460.48	37.9	37.7	37.9	12.49	12.17	12.15
Machinery	341.07	339.84	318.55	40.7	40.7	38.8	8.38	8.35	8.21
Copper Mining	512.86	519.30	523.38	39.3	39.8	39.5	13.05	13.05	13.25
Construction	426.51	421.36	456.96	36.8	36.8	38.4	11.59	11.45	11.90
Utilities	529.27	529.27	488.32	43.1	43.1	43.1	12.28	12.28	11.33
Retail Trade**	238.14	238.14	207.13	33.4	33.4	33.3	7.13	7.13	6.22
Wholesale Trade	346.66	346.66	344.56	39.8	39.8	40.3	8.71	8.71	8.55

* Preliminary
** Excludes eating and drinking places.
NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data have been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/84)

THE ARIZONA LABOR FORCE IN APRIL 1984

Arizona's economy continued to show strength in April as the unemployment rate dipped to its lowest level since October 1979. Once again, the state's urban counties led the way. The unemployment rates in Maricopa and Pima Counties are among the lowest of the nation's metropolitan areas. While the rate of growth in employment has slowed somewhat, new jobs were still being created at a rapid clip in construction, services and retail trade. Wage and salary employment rose by over 700 in the state's nonmetropolitan counties, but this was mostly due to the return to work of 700 striking coal miners in northern Arizona.

An analysis of recent economic performance in Arizona reveals some impressive facts. Unemployment within the state has fallen rapidly at a time when the nation's unemployment rate has remained steady for three consecutive months. The economic recovery which began early in 1983 has continued smoothly for fourteen months. About 100,000 jobs have been created in Arizona during a period when employment in copper mining actually declined. The increased diversity of the state's economy will help to promote stability in the future.

At 4.6 percent, Pima County's unemployment rate is also at its lowest level in over four years. Trade activity in the Tucson area seems especially strong. Although the winter tourism season is over, most of the gains in employment made during the winter in Pima County have been retained. Employment in Pima County has grown more slowly than in Maricopa County because the Phoenix area has not depended on mining and trade with Mexico to the same degree that southern Arizona has. However, the rapid growth of manufacturing activity in recent years has been contributing to the resilience and complexity of the Pima County economy.

Unfortunately, much of Arizona is not shareing in the prosperity. There are still over 70,000 unemployed workers in Arizona. Many communities in southern Arizona continue to suffer from the impact of economic distress in Mexico and its effects on trade in the border counties. There are towns around the state that have depended on the copper mines for jobs for many years. As long as the copper industry remains depressed, these communities will continue to face severe hardship and very few jobs will be created. Consider the contrasting conditions in Coconino County, a growing area with an unemployment rate of 6.6 percent, and Santa Cruz and Gila Counties, both with unemployment rates over 13 percent. It is clear that economic opportunities are unevenly distributed in Arizona, and the statewide statistics do not reveal this disparity.

The short-term outlook for the state is mixed. The economy is expected to keep growing, but rising interest rates may cause the pace of construction activity to slow down. Some upward pressure on the unemployment rate may be seen as people, attracted by the recent growth of job opportunities in the metropolitan areas, enter the labor force. Overall, we expect Arizona to continue to perform significantly better than the national average.

EDUCATIONAL LEVEL OF ARIZONANS 25 YEARS AND OVER
(1980 Census)

COUNTY	LESS THAN 5 YEARS ELEMENTARY SCHOOL	HIGH SCHOOL GRADUATES	4 OR MORE YEARS OF COLLEGE	MEDIAN YEARS OF SCHOOL COMPLETED
Apache	26.2%	49.3%	10.4%	11.8
Cochise	4.7	68.8	13.8	12.5
Coconino	8.6	74.4	23.2	12.8
Gila	3.6	61.7	7.8	12.3
Graham	5.4	60.5	10.0	12.3
Greenlee	3.2	68.3	9.9	12.4
Maricopa	2.7	75.0	18.3	12.7
Mohave	1.0	69.1	8.8	12.5
Navajo	12.6	59.7	11.2	12.3
Pima	2.9	74.6	20.7	12.7
Pinal	7.0	55.0	9.3	12.2
Santa Cruz	9.3	54.0	13.2	12.2
Yavapai	1.1	73.9	16.2	12.6
Yuma	7.5	61.6	10.9	12.3
ARIZONA	3.8	72.4	17.4	12.7
U. S.	3.4	68.7	17.0	12.5

NOTE: Data are estimates based on a sample.

SCHOOL STATUS OF ARIZONANS 16-19 YEARS OLD
(1980 Census)

COUNTY	ENROLLED IN SCHOOL	HIGH SCHOOL GRADUATE	NOT ENROLLED, NOT HIGH SCHOOL GRADUATE	ARMED FORCES
Apache	61.1%	12.4%	26.5%	--
Cochise	69.3	12.3	13.7	4.7%
Coconino	74.1	13.4	12.5	--
Gila	62.8	13.5	23.8	--
Graham	73.2	14.8	11.9	--
Greenlee	65.3	21.7	13.0	--
Maricopa	64.0	16.8	18.4	0.8
Mohave	52.9	25.8	21.3	--
Navajo	59.4	14.0	26.0	0.6
Pima	69.5	15.2	14.1	1.3
Pinal	59.6	13.5	26.9	--
Santa Cruz	73.7	10.4	15.8	--
Yavapai	72.8	15.3	11.6	0.3
Yuma	53.5	13.9	26.0	6.5
ARIZONA	65.1	15.8	18.0	1.1
U. S.	70.1	15.3	13.2	1.5

NOTE: Data are estimates based on a sample. Figures may not total to 100.0 due to rounding error.

STATE APROPRIATIONS FOR HIGHER EDUCATION
1983-84*
(in thousands)

	APPROPRIATIONS 1983-84	2-YEAR CHANGE
University of Arizona	$147,249	+ 4%
Arizona State University	$102,551	+ 6%
Northern Arizona University	$ 37,906	+ 9%
Community Colleges	$ 44,618	+47%
Other Appropriations	$ 3,756	+ 2%
TOTAL	$336,080	+10%

HOW ARIZONA RANKS AMONG THE 50 STATES
ON 5 SCALES*

1983-84 APPROPRIATIONS		APPROPRIATIONS PER CAPITA		APPROPRIATIONS PER $1000 OF PERSONAL INCOME		2-YEAR CHANGE LESS INFLATION		10-YEAR CHANGE LESS INFLATION	
AMOUNT	RANK	AMOUNT	RANK	AMOUNT	RANK	PERCENT	RANK	PERCENT	RANK
$336,080,000	29	$116.25	23	$11.09	20	0%	33	+10%	31

*SOURCE: The Chronicle of Higher Education, October 26, 1983.

GENERAL FUND APPROPRIATIONS FOR ARIZONA PUBLIC UNIVERSITY SYSTEM
1982-83 (revised)

	ARIZONA STATE UNIVERSITY	NORTHERN ARIZONA UNIVERSITY	UNIVERSITY OF ARIZONA				BOARD OF REGENTS
			TOTAL	MAIN CAMPUS	COLLEGE OF MEDICINE	UNIVERSITY HOSPITAL	
Operating Budgets, General Fund Appropriations (in millions)	$89.2	$33.5	$126.0	$103.9	$18.3	$3.8	$3.1
Percent of Total General Fund Appropriation	35.4%	13.3%	50.0%	41.2%	7.3%	1.5%	1.2%

NOTE: Percentage do not total 100.0 due to rounding error.
SOURCE: Arizona Board of Regents.

FUNDS RECEIVED BY SCHOOLS FROM ARIZONA STATE TRUST LANDS
YEAR ENDING JUNE 30, 1983

	EARNINGS FROM TRUST LAND PERPETUAL FUNDS	RECEIPT DISTRIBUTION SALES INTEREST	LEASE RENTAL	PENALTY & INTEREST	TOTAL FUNDS RECEIVED
Normal Schools-					
Half to Arizona State University	$ 21,784	$ 7,380	$ 77,005	$ 223	$ 106,392
Half to Northern Arizona University	21,784	7,380	77,005	223	106,392
University of Arizona-					
Agricultural & Mechanical Colleges	66,417	30,024	100,681	354	197,476
Military Institutes	30,323	1,993	74,611	282	107,209
School of Mines	73,848	23,825	119,896	732	218,301
University Land Code	297,235	9,464	192,967	2,271	501,937
University of Arizona, Act of 2-18-1881	223,402	23,341	143,985	881	391,609
Total, University of Arizona					1,416,532
Permanent Common Schools	12,696,233	1,173,623	7,210,965	75,514	21,156,335

SOURCE: Arizona State Land Department.

STATISTICS IN EDUCATION
(GRADES K-12)
1982-83

Number of Pupils Enrolled in Public Schools	552,395
Number of Pupils Enrolled in Private Schools	45,142
Total State Enrollment	597,537
Number of Public Schools	879
Number of Private Schools	354
Number of Public School Classroom Teachers	26,194
Female= 66.2% Male= 33.8%	
Total Expenditures	$ 1.3 Billion
Cost per Pupil (Regular Education Program)	$ 1,788
Average Salary per Teacher	$21,119
Revenues:	
State Aid	51.0%
Local Support	36.8
Federal Aid	8.5
County Aid	3.7

SOURCE: Arizona Department of Education, Annual Report of the Superintendent of Public Instruction, FY 1982-83.

ENROLLMENT AT ARIZONA PUBLIC UNIVERSITIES AND COMMUNITY COLLEGES
FALL 1983

	TOTAL STUDENTS (HEADCOUNT)	TOTAL STUDENTS (FTE*)
PUBLIC UNIVERSITIES		
Arizona State University	40,239	31,198
Northern Arizona University	11,501	10,140
University of Arizona	29,986	25,208
SUB-TOTAL	81,726	66,546
PUBLIC COMMUNITY COLLEGES		
Arizona Western College	4,090	1,925
Central Arizona College	4,906	2,016
Cochise College	4,103	2,416
Eastern Arizona College	3,370	1,692
Glendale Community College	13,689	7,185
Maricopa Technical Community College	3,407	1,844
Mesa Community College	15,175	8,101
Mohave Community College	3,066	1,040
Northland Pioneer College	5,274	1,565
Phoenix College	13,137	6,601
Pima Community College	20,902	10,661
Rio Salado Community College	10,858	2,837
Scottsdale Community College	7,504	3,506
South Mountain Community College	1,667	1,082
Yavapai Community College	5,343	1,844
SUB-TOTAL	116,491	54,315
GRAND TOTAL	198,217	120,861

* Full-time equivalent.

SOURCES: Arizona Board of Regents and Arizona Commission for Postsecondary Education, Higher Education General Information Survey (HEGIS).

FACULTY AT ARIZONA PUBLIC COMMUNITY COLLEGES
BY SEX AND RANK, 1983-84

	MALE	FEMALE	PERCENT FEMALE
Arizona Western College	45	23	33.8%
Central Arizona College	INA	INA	--
Cochise College	65	25	27.8
Eastern Arizona College	39	13	25.0
Glendale Community College	107	60	35.9
Maricopa Technical Community College	32	23	41.8
Mesa Community College	120	60	33.3
Mohave Community College	INA	INA	--
Northland Pioneer College	INA	INA	--
Phoenix College	94	71	43.0
Pima Community College	145	93	39.1
Rio Salado Community College	3	2	40.0
Scottsdale Community College	57	43	43.0
South Mountain Community College	4	12	75.0
Yavapai Community College	40	20	33.3

INA = Information not available.
NOTE: Data are for full-time instructional staff.
SOURCE: Arizona Commission for Postsecondary Education, Higher Education General Information Survey (HEGIS).

AVERAGE FACULTY SALARIES FOR ARIZONA PUBLIC COMMUNITY COLLEGES
1983-84
(in thousands)

	MALE	FEMALE	RATIO*
Arizona Western College	$ 24.4	$ 22.0	90%
Central Arizona College	INA	INA	--
Cochise College	23.2	20.7	89%
Eastern Arizona College	26.5	22.3	84%
Glendale Community College	35.1	32.9	94%
Maricopa Technical Community College	33.8	30.2	89%
Mesa Community College	35.1	31.4	89%
Mohave Community College	INA	INA	--
Northland Pioneer College	INA	INA	--
Phoenix College	35.6	32.9	92%
Pima Community College	25.5	23.8	93%
Rio Salado Community College	28.4	37.6	132%
Scottsdale Community College	32.5	34.6	106%
South Mountain Community College	30.4	25.2	83%
Yavapai Community College	28.0	24.0	86%

* Female salary as a percentage of male salary.
INA= Information not available.
NOTE: Data are for full-time instructional staff on 9-month salary contracts. Data to control for factors such as length of service were not available.
SOURCE: Arizona Commission for Postsecondary Education, Higher Education General Information Survey (HEGIS).

FACULTY AT ARIZONA PUBLIC UNIVERSITIES BY SEX AND RANK
1983-84

	PROFESSOR			ASSOCIATE PROFESSOR			ASSISTANT PROFESSOR			INSTRUCTOR		
	MALE	FEMALE	PERCENT FEMALE	MALE	FEMALE	PERCENT FEMALE	MALE	FEMALE	PERCENT FEMALE	MALE	FEMALE	PERCENT FEMALE
Arizona State University	439	43	8.9%	344	63	15.5%	196	100	33.8%	4	25	86.2%
Northern Arizona University	108	3	2.7	166	18	9.8	89	37	29.4	27	23	46.0
University of Arizona	644	29	4.3	300	59	16.4	141	72	33.8	11	12	52.2

NOTE: Data are for full-time instructional staff.
SOURCE: Arizona Commission for Postsecondary Education, Higher Education General Information Survey (HEGIS).

AVERAGE FACULTY SALARIES FOR ARIZONA PUBLIC UNIVERSITIES
1983-84
(in thousands)

	PROFESSOR			ASSOCIATE PROFESSOR			ASSISTANT PROFESSOR			INSTRUCTOR		
	MALE	FEMALE	RATIO*	MALE	FEMALE	RATIO*	MALE	FEMALE	RATIO*	MALE	FEMALE	RATIO*
Arizona State University	$40.8	$37.2	91%	$31.2	$29.8	95%	$25.6	$23.8	93%	$19.2	$19.6	102%
Northern Arizona University	36.2	35.5	98%	29.4	28.9	98%	24.3	23.5	97%	20.0	19.3	96%
University of Arizona	41.8	38.2	91%	31.2	29.2	94%	25.8	23.9	93%	25.7	20.7	80%

* Female salary as a percentage of male salary.
NOTE: Data are for full-time instructional staff. A standard conversion factor of .818 was applied to 12-month salaries. Data to control for time-in-rank, productivity and market factors were not available.
SOURCE: Arizona Commission for Postsecondary Education, Higher Education General Information Survey (HEGIS).

TUITION & REQUIRED FEES ARIZONA'S PUBLIC UNIVERSITIES
)83-84

Resident Fees	$ 850
Average Resident Fees in 13 Western States (WICHE region)	$ 991
Average Resident Fees at 50 Major State Universities	$1,243
Non-Resident Tuition	$3,515
Average Non-Residential Tuition in 13 Western States (WICHE region)	$3,094
Average Non-Resident Tuition at 50 Major State Universities	$3,289

SOURCE: Arizona Board of Regents.

"DIPLOMA MILLS"-- A THING OF THE PAST IN ARIZONA

There are many today who believe that alternative education and the non-traditional degree will be the wave of the educational future. People are earning college degrees on the basis of correspondence study, credits for life or work experience, intensive study and equivalency examinations. This is a valid alternative to classroom study for people who cannot leave full-time employment to attend a traditional college.

However, abuses of such non-traditional approaches to education sometimes occur. Arizona has been a prime target for such abuses because, until recently, it has been one of three states that lack the power to properly regulate "diploma mills"-- unscrupulous businesses that provide bachelor, master and doctoral degrees for a price and little else. Many diploma mills are operated by individuals who live out of state and the "campuses" are nothing more than mail drops or telephone answering services. Accreditation -- a method developed by private educational associations to insure minimum standards of quality for both public and private institutions -- is "granted" to diploma mills by phony accrediting agencies set up by the diploma mills themselves to give an illusion of credibility.

A recent FBI investigation of one Arizona diploma mill illustrates this pattern. The investigating agent obtained a master's degree in business administration after paying the school $1,595. He purchased a "class ring" after sending the school's "jewelry department" a check for $149. To "earn" his degree, the agent did no research and wrote no thesis. In fact, in a letter to the school he wrote that he did not have time to do research because he was "backlogged" as a result of a vacation to the World's Fair. School officials agreed to accept only his resume and awarded him a master's degree several months later.

Arizona's consumer-fraud laws have been ineffective in dealing with diploma mills because they were designed to protect consumers. In diploma-mill cases, the consumers are not victims but the willing participants in the scheme. The victims are employers who hire or promote workers on the basis of this bogus education.

Regulation of diploma mills in Arizona will now be possible with the recent passage of HB-2423. Private degree-granting institutions which meet the minimum criteria as defined by the legislature will be required to apply for and become licensed in order to grant degrees in Arizona. Businesses which cannot meet the minimum standards will be required to cease operation in Arizona.

The primary licensing standard required of institutions which grant degrees will be that each degree program offered is accredited or the institution is accredited by an accrediting agency recognized by the United States Department of Education or the Council on Postsecondary Education.

Because the process of accreditation may take several years, there are provisions for unaccredited degree-granting institutions to demonstrate that application for accreditation has been made through an appropriate agency or the institution must show a commitment to apply for accreditation. During the period of accreditation candidacy, the institution will be monitored to ensure that standards compatible with accreditation acceptance are maintained.

The legislation does not apply to public community colleges, public universities, or to institutions which offer religious degrees that are used solely for religious purposes within a religious organization which has tax exempt status from the Internal Revenue Service.

An existing agency, the State Board of Private Technical and Business Schools, will soon have its name changed to the State Board for Private Postsecondary Education. Presently, the Board licenses ap-

proximately 200 schools and seminars which offer courses designed to prepare students for specific jobs. These schools offer a broad range of courses in such diverse areas as business, technical, allied health and real estate. Many of the licensed schools are accredited by nationally-recognized accrediting agencies.

Effective January 1, 1985, in addition to the presently licensed schools, the Board will assume responsibility for the licensing of private degree-granting institutions. State licensing will strengthen the professional image of legitimate degree-granting institutions and better serve the general public.

Patricia Plack
Arizona State Board
of Private Technical
and Business Schools

PHOENIX URBAN LEAGUE AND IBM TEAM UP TO TRAIN JOBLESS IN COMPUTER SKILLS

The Phoenix Urban League Training Center opened its doors in October 1982 to unemployed Arizonans interested in preparing for a job. Since that time, 90 students have graduated in one of four areas--computer programming, computer operations, word processing or clerical--and the overall placement rate is an impressive 96 percent. This rate is consistent with the program's goal which is placement, not simply training, of the participants.

IBM has furnished the state-of-the-art equipment used at the training center. In addition, the program instructors and the training center manager are paid employees of IBM available to the training center for a total of three years. The equipment, which includes 18 terminals, is also on loan for three years but will be renegotiated for continued loan at the end of that period.

Prospective students must pass a rigorous screening process that includes an application, an aptitude test and an in-depth interview. Once admitted, the standards continue to be high. The computer programming and computer operations students must maintain a 75 percent grade point average on all tests and assignments. The word processing and clerical students must also meet typing speeds. All of the participants must be highly motivated because they receive no stipends (despite being unemployed), and they must conduct themselves as if on a job during the five-days-a-week, 9:00 to 4:00 class sessions. The training lasts ten weeks (13 for computer programming).

The Phoenix Urban League is responsible for administering the program, furnishing the facilities and developing the job-specific skills, related basic skills and responsibility skills necessary if the students are to succeed on the job (a course the Phoenix Urban League calls "Jobology"). The League also assists the students in job placement although, ultimately, finding a job is considered a student responsibility.

The training center provides a properly organized and well-planned approach to the job market. Although the students do not pay a fee, the training center does expect something in return -- hard work, cooperation and adherence to the policies governing the center. The 96 percent placement rate testifies to how well the center -- and the students -- are doing their job.

Lee Marshall
Phoenix Urban League

INDUSTRY TRAINING SERVICES--CORPORATE SECURITY TRAINING PROGRAM

Security service is an occupation common to all Arizona industries. It is also one of the fastest-growing occupations in our state, with an anticipated growth rate of nearly 40 percent in the next five years.*

While present employment is somewhat limited, the nearly 7,000 persons currently employed have a major impact upon the operations of business and industry in Arizona. In nearly all industries, visitors must be cleared to venture beyond the front lobby and personnel are checked as they enter and exit work sites. Where hazardous materials are involved, or in the case of our high-technology industries, security services have become vital to a company's survival.

The security service occupation is changing rapidly. As life-threatening situations become more commonplace, security service people need the skills of yesterday's guard as well as knowledge of the the criminal justice system, constitutional law, self defense, narcotics and life-saving techniques. Given these increased requirements, there is a lack of adequately trained security staff.

A cooperative program of security training funded through Industry Training Services and the Department of Economic Security, JTPA Dislocated Workers, has been designed to alleviate the shortage of trained security personnel. The training goes beyond a very limited state licensing requirement, providing trainees with 80 hours of intensive instruction in the following areas: the criminal justice system, law enforcement courts and correction, constitutional law, laws of arrest and civil liability, criminal law, first aid, self-defense methods and tactics, riot control, cardiopulmonary resuscitation, fire prevention and and safety, firearm legal and moral use, and qualification.

Completion of this training will allow the California Plant Protection Agency, the employing company, to provide skilled employees for such companies as Salt River Project, Arizona Public Service Company, Palo Verde Nuclear Generating Station and many of the electronic manufacturing industries which require a highly trained security staff.

Working through worker assistance centers, persons are referred to training who are identified as dislocated workers and who:

1. Have been terminated or laid off or who have received a notice of termination or layoff from employment, are eligible for or have exhausted their entitlement to unemployment compensation, and are unlikely to return to their previous industry or occupation;

2. Have been terminated, or who have received a notice of termination of employment as a result of any permanent closure of a plant or facility; or

3. Are long-term unemployed and have limited opportunities for employment or reemployment in the same or a similar occupation in the area in which they reside, including any older individuals who may have substantial barriers to employment by reason of age.

Referrals will be based upon a person's interest and ability to become state certified upon program completion. Persons interested in security service but who do not qualify for the dislocated worker project may apply directly to the California Plant Protection Agency for entry into the program.

Persons selected for the training may, after meeting state requirements, be licensed and placed in on-the-job training positions for a period not to exceed six weeks. Employers are reimbursed for about half of the wages for extraordinary training costs and employees enjoy financial assistance and an opportunity to apply the skills learned in the classroom. Length of on-the-job training will vary and is negotiated through each contract.

All persons who complete the training are automatically employed by the California Plant Protection Agency at a rate from $4.53 to $7.50 per hour, contingent upon the nature and location of work. Job placement may be in any of the contracts serviced by California Plant Protection; however, every effort will be taken to ensure that financial hardships are not created through work assignments.

This example of cooperation between business/industry, state services and service-providing agencies provides the best possible utilization of our available resources and a quality work force to meet employment demands. Only through such continued efforts can we maximize utilization of existing facilities and equipment, thus providing a very cost-conscious public relief from new and often duplicative training services.

Industry Training Services is ready to assist business and industry in creating a productive and skilled work force. As a state funded and administered project by the Arizona Department of Education, Division of Vocational Education, in cooperation with the Arizona Department of Economic Security, it is dedicated to the following purposes:

- To encourage new industries to locate in Arizona and to encourage existing industries to expand their Arizona operations.
- To offer to the people of Arizona the specific training needed to qualify for and perform in the new jobs created by new or expanding industries.
- To help new or expanding industry create a productive work force as expeditiously and efficiently as possible.

Don Parsons
Coconino County Educational Services

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*Labor Market Information, Occupational Employment Statistics (OES) Unit.

NEW LMI PUBLICATIONS

Updates of the Maricopa and Pima County Small Employer Wage Surveys are now available. These publications contain information on wages paid by private businesses with fewer than 100 workers in Maricopa and Pima Counties. The survey month was August, 1983. Data were collected by mail from randomly selected and undisclosed employers. Wage structures are reported for over 120 occupations in Pima County and for 135 occupations in Maricopa County.

Single copies of these publications may be obtained by writing: Labor Market Information Publications - 733A, P. O. Box 6123, Phoenix, Arizona 85005. Multiple copies may be purchased for the cost of the printing.

ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES - MARCH 1984

	March 1984	February 1984	March 1983	From One Year Ago
Arizona Claimants Served**	30,282	31,302	67,452	-55.1%
Arizona Average Weeks Unemployed***	9.3	9.0	10.7	-13.1%
Arizona Benefits Paid**	$ 10,855,611	$9,890,768	$23,761,819	-54.3%
Arizona Trust Fund Balance	$160,999,182	$168,594,587	$175,046,144	- 8.0%

*Estimated **All Programs ***UI Only

Construction - Construction will begin this month on the first phase of a $17 million office complex at Cabot, Cabot & Forbes' Civic Center Business Park, between Seventh and 11th Streets from Jefferson to Jackson Streets in Phoenix. The complex will consist of 148,000 square feet of leasable space.

Griffiths Construction, Inc., a Casa Grande contracting firm formed last year, has established a Phoenix headquarters. A staff of 13 will work at the new office.

Construction began last month on the $30 million second phase of the Scottsdale Financial Center office complex. The 151,000 square-foot structure will be completed in June 1985. The project will emphasize financial institutions, stock and bond brokers and other financially oriented tenants.

Manufacturing - Environmental Air Products Inc. may increase its 1,000-member payroll in Tucson by about 200 after completion of a major expansion project scheduled to begin this fall. Environmental Air is a producer of commercial air systems. The $5 million project the company is planning is expected to be financed by $3 million from bond sales, $1.2 million from a city-approved Urban Development Action Grant, and $800,000 from a 1982 bond sale.

A New York-based electronics firm has announced plans to move a portion of its manufacturing facilities to Chandler, creating up to 100 new jobs. The company hopes to be operating by August and will initially employ about 25 workers. The firm, Haraeus Volkert Corp., produces metal lead frames, the small piece of metal to which computer chips are attached. The company plans to be a supplier to Intel Corp. and Motorola, both of which plan major expansions in the Chandler area.

Sundt Products Inc., a subsidiary of the Sundt Corp., is adding 55 workers -- more than doubling its Tucson work force -- to handle a contract to build 36 fiberglass pollution-control mechanisms for Dresser Industries' Fluid-Ionic Systems, in Phoenix. Most of the hirings have and will come from Sundt workers who had been laid off.

American Converters Division of American Hospital Supply Inc. is moving some of its manufacturing from Palm Springs, California to Tucson. A few managers may transfer and the 50 employees are being given a chance to relocate. An unspecified number of workers will be hired by the company, based in Evanston, Illinois, to make entrance mats and hospital clothing.

ITT Corp. has formed a new division headquartered in Tempe that will manufacture and market the company's new Xtra personal computer. Manufacturing, product planning, research and development and software development for the division will be located in San Jose, California. Sales organizations for the division, as well as its headquarters, are in Tempe.

Atlantic Richfield plans to build a Tucson manufacturing operation late this year that is to employ about 20 employees with chemical or engineering degrees. The plant would be the only manufacturing facility in the country to produce super-pure aluminas for application in the high-technology and electronic markets. Aluminas production is currently dominated by the foreign market, particularly by France and Japan. ARCO is anticipating a rapid penetration of 25 to 30 percent of that market, which is estimated at $10 million.

Banking - The Chase Manhattan Corp. in New York has filed applications with the U. S. comptroller of the currency to place banks in eight states, including one in Phoenix and one in Tucson. The expansion is made possible by recent interpretations of federal banking laws by regulatory agencies.

Mellon Bank of Pittsburgh has also announced that it has asked the federal government for permission to open consumer banks in several cities, including Phoenix.

Mining - Pinto Valley Copper Corp. has resumed operations at its open-pit copper mine in Miami, putting about 375 workers back to work. Although copper prices have remained at depressed levels, the company said an agreement with its unions to cut hourly wages by $2 for six months will allow it to restart. The mine had been closed since July 1982, when about 450 people were laid off. The only portions of the operation that have remained in use are two leaching units.

Automobiles - Chrysler Corp. has announced plans to build and operate an auto proving ground in Wittmann, 35 miles northwest of Phoenix. The 3,812-acre, $12 million test site is scheduled for completion in three years and will be available for initial testing within 18 months. The site will be used to test the effects of heat, high altitudes and desert conditions. Employment is projected at 100 by the fall of 1985.

The test site will be the third proving ground operated by a major automaker in Arizona. Ford performs tests near Kingman, and General Motors has a test area south of Mesa.

Gasoline - Mobil Oil Corp. is planning to expand its holdings in Phoenix. The company has agreed to purchase 21 Valley self-service stations from the Pasco Petroleum Co. within the next few months. In December, Texaco Inc. purchased six self-service stations from the Phoenix-based Giant Industries, Inc. The Texaco and Mobil transactions are considered by some industry officials to be the latest moves in a continuing trend toward the domination of the Phoenix-area gas market by major oil companies.

Hotels - The city of Tucson has received a $425,000 Urban Development Action Grant toward the renovation of the Geronimo Hotel. The $2.5 million project to renovate the 53-year-old hotel just west of the University of Arizona is expected to produce about 145 jobs.

Hotel Properties, developer of a nationwide hotel chain, has recently opened Continental Inns in Flagstaff and Tucson.

Restaurants - Phoenix-based MacDonald Mortgage Corp. has obtained the rights to franchise, build and operate as many as 61 Po Folks Family Restaurants, including 11 in Arizona. Po Folks is based in Nashville, Tennessee and currently has 104 restaurants, mainly in the South. Nine restaurants will be built in Maricopa County, one in Flagstaff and one in Yuma.

Layoffs - Cyprus Metallurgical Processes Corp. has laid off 18 employees, nearly half of its 41-member work force. The operation 21 miles from Tucson employed 123 persons before earlier cutbacks. The layoffs affected machine operators, mechanics and administrative personnel.

Three Phoenix-area school districts have announced plans to lay off staff. The Scottsdale School Board has decided not to renew the contracts of 58 teachers, although the district hopes to find jobs for the displaced teachers by the beginning of the 1984-85 school year by filling positions vacated by teachers who retire or resign. In the Deer Valley Unified School District, 39 instructors, mostly elementary school teachers, have received reduction-in-force notices. It is anticipated that some of these teachers will be hired back for the 1984-85 school year. In the Phoenix Elementary School District, 71 teachers and other employees were left without jobs at the end of the recently-completed school year. An administrative reorganization and a reduced district budget capacity caused by state spending limits are forcing the layoffs of 35 teachers, two administrators, 28 classified employees and six people in professional non-teaching positions.

Arizona Supreme Court Ruling - Promises made in employee handbooks can become part of an employment contract and can limit an employer's ability to fire its workers according to a recent Arizona Supreme Court ruling. However, Vice Chief Justice Frank X. Gordon Jr. wrote in the 13-page opinion that, "We do not mean to imply that all personnel manuals will become part of employment contracts." He said employers are free not to issue manuals or to warn employees that a manual is not part of their contract and that they may be fired with or without reason.

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